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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,968	12/31/2001	Niels Peter Emme	1149.41056X00	5435

20457 7590 10/31/2005

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EXAMINER

LAM, HUNG H

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/029,968	Applicant(s) EMME, NIELS PETER	
	Examiner Hung H. Lam	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendments, filed on 08/19/05, have been entered and made of record. Claims 1-18 are cancelled. Claims 19-40 are pending.

In view of the Applicant's amendment of the title, description of drawing, claims 33 and 36-37, the objections are hereby withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 19-40 have been considered but are moot in view of the new ground(s) of rejection.


The Applicants argue that Unchino has no counter part of the claimed combination of a digital camera and a transceiver which both emit an infrared light beam to illuminate an object and receive the reflected light beam through an infrared port with the infrared transceiver further provide a wireless connection between the terminal and other communication devices.

The Examiner respectfully agrees. The Examiner has never alleged that Unchino provides a wireless connection between the terminal and other communication devices. Instead, the Examiner has relied ^{upon} Wakui's reference to provide wireless connection between the terminal and other communication devices (Fig. 1; emitter 17 and infrared sensor 20; Col. 4, Ln. 30-44; Col. 5, Ln. 51 – Col. 6, Ln. 17). Further more, Unchino teaches a digital camera which emits infrared beam toward the substantially complete object area and acquires infrared image (Col. 3, Ln. 22-

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48). The infrared emitting portion 32, which is used to generate infrared radiation, is interpreted as the transmitting portion of the transceiver (Col. 3, Ln. 22-25). The infrared capturing/receiving portion (CCD 41), which is used for infrared image acquisition, is interpreted as the receiving portion of the transceiver (Col. 3, Ln. 31-48; it is inherent that the infrared image is obtained from the reflected infrared light beam of the emitter 32).

The Applicants further argue that there is no basis why a person of ordinary skill in the art would ^{be} led to modify the teaching of Uchino to arrive at the subject matter of the claims as amended.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation of providing an additional wireless communication function with an existing infrared transceiving portion is found in the knowledge generally available to one ordinary skill in the art.

In view of the above, the Examiner believes that the broadest interpretation of the present claimed invention does in fact read on the cited reference for at least the reasons discussed above and as stated in the detail Office Action as follows. This Office action is now made final.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 19-30 and 34-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Uchino (US-6,580,459).

With regarding to **claim 19**, Uchino discloses a mobile communication terminal comprising:

a digital camera having an angle of view (it is inherent that the digital camera has an angle of view), an infrared transceiver for emitting a beam of infrared light (Col. 3, Ln. 22-35; Fig. 6; Infrared emitting portion 32, 25: wherein the infrared emitting portion 32 which is used to generate infrared radiation is interpreted as the transmitting portion of the infrared transceiver; the infrared capturing/receiving portion {CCD 41} which is used for infrared image acquisition is interpreted as the receiving portion of the infrared transceiver), whereby the angle of view of the digital camera and the infrared light beam are directed such that a substantial part of the angle of view is overlapped by the emitted infrared light beam so that objects in the angle of view may be illuminated by the infrared light beam (Col. 3, Ln. 22-25; Col. 3, Ln. 35-38) and the transceiver receives through the port receiving infrared light reflected by the objects which are illuminated by the beam of infrared light (Col. 3, Ln. 22-48, wherein Uchino teaches a digital camera which emits infrared beam toward the substantially complete object area and acquires infrared image. Col. 3, Ln. 31-48 wherein it is inherent that the objects in the infrared

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image must be reflected into the infrared capturing/receiving portion in according to the infrared emitting beam irradiated by the emitting portion of the transceiver).

However, Uchino fails to disclose an infrared transceiver for emitting a beam of infrared light through which a wireless connection is also provided between the terminal and other devices

In the same field of endeavor, Wakui teaches a camera comprising an infrared port for data communication (Col.4, Ln. 30-44; Col. 5, Ln. 51-67). Wherein the infrared port comprises an emitting (Fig. 1; IRED 17) and a capturing/receiving portion (PSD 20) for wireless communication (Col. 3, Ln. 48- Col. 4, Ln. 30). In light of the teaching from Wakui, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Uchino to utilize the infrared emitter and transmitter for wireless communication purpose as taught by Wakui in order to provide an additional wireless communication function and thereby improving the versatility of the camera with an existing infrared transeing portion.

With regarding to **claim 20**, Uchino in view of Wakui discloses a mobile communication terminal wherein: the infrared light beam is movable (Wakui: Fig. 1; Col. 6, Ln 1-28) and the direction of the infrared light beam is substantially aligned with the angle of view (Wakui: Fig. 6; lens 42 and infrared emitter 32 are aligned and pointed toward photographing object).

With regarding to **claim 21**, Uchino in view of Wakui discloses the mobile communication terminal comprising:

an infrared filter, which is movable in and out of the light path into the camera (Uchino: Figs. 1 and 3; Filter 43; Col. 4, Ln. 56-61).

With regarding to **claim 22**, Uchino in view of Wakui discloses a mobile communication terminal wherein:

the infrared filter has a first position in the light path and a second position out of the light path (Uchino: Figs. 1 and 3; Filter 43; Col. 4, Ln. 56-61; Col. 5, Ln. 5-9; Col. 5, Ln. 17-21).

With regarding to **claim 23**, Uchino in view of Wakui discloses a mobile communication terminal comprising:

an electro-mechanical or electronic actuator which moves the infrared filter from the first position to the second position and back (Uchino: Fig. 6; Selection Drive Unit 49; Col. 4, Ln. 56-61; Col. 5, Ln. 5-9; Col. 5, Ln. 17-21).

With regarding to **claim 24**, Uchino in view of Wakui discloses a mobile communication terminal comprising:

a display which displays the image captured by the camera (Uchino: Fig. 10; Display 71; Col. 6, Ln. 63-65).

With regarding to **claim 25**, Uchino discloses a mobile communication terminal wherein: an image captured by the camera is refreshed at regular intervals (Uchino: it is inherent that the captured image must be refreshed at a predetermined interval in order for viewer of Display 71 to view images as desired).

With regarding to **claims 26-28**, Uchino in view of Wakui discloses a mobile communication terminal wherein:

at least 60%,80%, and 90% of the viewing angle is overlapped by the infrared light beam (Wakui: Col. 5, Ln. 58- Col. 6, Ln. 28 wherein the infrared source is capable of emitting larger or smaller angular range).

With regarding to **claim 29**, Uchino in view of Wakui discloses a mobile communication terminal wherein:

the camera uses software which processes captured digital images (Uchino: software is inherently executed in the CPU 51).

With regarding to **claim 30**, Uchino in view of Wakui discloses a mobile communication terminal according wherein:

a focusing system which focuses the light coming into the camera (Uchino: Col. 3, Ln. 21-25; Col. 3, Ln. 35-48), which provides a first setting adjusted to characteristics of visual light and a second setting adjusted to the characteristics of the infrared light (Uchino: Col. 4, Ln. 56-61; Col. 5, Ln. 5-9; Col. 5, Ln. 17-21).

With regarding to **claim 34**, Uchino discloses a method of capturing infrared images comprising the steps of:

providing a mobile communication terminal comprising a digital camera and an infrared transceiver which emits a beam of infrared light (Col. 3, Ln. 22-35; Fig. 6; Infrared emitting

portion 32: wherein the infrared emitting portion 32 which is used to generate infrared radiation is interpreted as the transmitting portion of the infrared transceiver. the infrared capturing/receiving portion {CCD 41} which is used for infrared image acquisition is interpreted as the receiving portion of the infrared transceiver) and an infrared port through which the beam of infrared beam of infrared light is emitted (Uchino: Fig. 6, see infrared emitting portion 32).

illuminating objects with the beam of infrared light emitted by the transceiver through the infrared port and receiving infrared light with the transceiver through the infrared port which is reflected from the objects by illumination with the infrared light beam (Col. 3, Ln. 22-48, wherein Uchino teaches a digital camera which emits infrared beam toward the substantially complete object area and acquires infrared image. Col. 3, Ln. 31-48 wherein it is inherent that the objects in the infrared image must be reflected into the infrared capturing/receiving portion in according to the infrared emitting beam irradiated by the emitting portion of the transceiver).

However, Uchino fails to disclose an infrared port through which a wireless connection is provided between the terminal and other devices.

In the same field of endeavor, Wakui teaches a camera comprising an infrared port for data communication (Col.4, Ln. 30-44; Col. 5, Ln. 51-67). Wherein the infrared port comprises an emitting (Fig. 1; IRED 17) and a capturing/receiving portion (PSD 20) for wireless communication (Col. 3, Ln. 48- Col. 4, Ln. 30). In light of the teaching from Wakui, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Uchino to utilize the infrared emitter and transmitter for wireless communication purpose as taught by Wakui in order to provide an additional wireless

communication function and thereby improving the versatility of the camera with an existing infrared tranceiving portion.

With regarding to **claim 35**, Uchino in view of Wakui discloses a method comprising the step of:

arranging the digital camera and transceiver (Uchino: Fig. 1; infrared emitting portion 32 and infrared capturing/receiving portion 41) in substantially a same direction of view of objects on the mobile communication terminal (Uchino: Fig. 6; see the direction of camera's lens 42 and infrared emitter 32).

With regarding to **claim 36**, Uchino in view of Wakui discloses a method further comprising the steps of:

providing an infrared filter used when capturing images with visible light (Uchino: Col. 5, Ln. 3-9), and

removing the infrared filter from the light path into the camera when capturing infrared images (Uchino: Col. 5, Ln. 20-25).

With regarding to **claim 37**, Uchino in view of Wakui discloses a method further comprising the steps of:

providing an infrared filter used when capturing images with visible light (Uchino: Col. 5, Ln. 3-9), and

removing the infrared filter from a path of the infrared light beam into the camera when the transceiver captures infrared images from the illumination objects (Uchino: Col. 5, Ln. 20-25;the

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object of the infrared image must be illuminated and reflected corresponding to the infrared beam generated by the infrared portion 32).

With regarding to **claim 38**, Uchino in view of Wakui discloses a method wherein:

the camera comprises an auto focus system and further comprising the step of adjusting settings of the auto focus system to characteristics of the infrared light when capturing infrared images (Uchino: Col. 3, Ln. 22-25; Col. 5, Ln. 17-25; infrared radiation irradiates toward auto focusing area).

With regarding to **claim 39**, Uchino in view of Wakui discloses a method wherein:

the mobile communication terminal comprises a display (Uchino: Display 71) and further comprising the step of displaying images captured by the digital camera on the display (Uchino: Col. 6, Ln. 63-64; the camera inherently displays captured images on the display).

With regarding to **claim 40**, Uchino in view of Wakui discloses a method comprising the step of:

capturing and displaying the images at intervals (Uchino: Col. 6, Ln. 63-64; the camera must display captured images on the display at a desired interval), which permits the mobile communication terminal to be used as a night vision device (Uchino: Col. 5, Ln. 20-25; it is inherent that the camera can be used in night vision because it is capable of emitting infrared light and acquiring infrared image).

5. Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchino in view of Wakui and further in view of Bittner (US-6,304,728).

With regarding to **claim 31**, Uchino in view of Wakui discloses the same subject matter as claimed in claim 19. Except that Uchino and Wakui fails to disclose a mobile communication terminal comprising:

a lens cover having a first position covering the lens of the camera and a second position exposing the lens. However, the limitations are well known in the art as taught by Bitter.

In the same field of endeavor, Bittner teaches a camera having a lens cover (62) coupled to actuator 36 in order for the rotating lever (tab 42) to close or open the camera lens cover (Col. 6, Ln. 1-14; Fig. 2 shows closed lens-cover in first position; Fig. 3 shows the opened lens-cover in second position). In light of the teaching from Bitter, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Uchino and Wakui to include the lens-cover mechanism of Bittner in order to cover the lens in first position and expose the lens to the light path in second position. The modifications thus provide a long lasting camera by protecting the lens from being scratched, damaged or becoming dirty (Bittner; Col. 2, Ln. 10-15).

With regarding to **claim 32**, Uchino in view Wakui and further in view of Bittner discloses a mobile communication terminal comprising:

an actuator which moves the lens cover from the first position to the second position and back to the first position (Bittner teaches a camera having a lens cover {62} coupled to actuator 36 in order for the rotating lever {tab 42} to close or open the camera lens cover; Col. 6, Ln. 1-

14; Fig. 2 shows closed lens-cover in first position; Fig. 3 shows the opened lens-cover in second position).

With regarding to **claim 33**, Uchino in view Wakui and further in view of Bittner discloses a mobile communication comprising a handle having a first position associated with the first position of the lens cover (Bitter; Fig. 2 shows closed lens-cover in first position), the handle having a second position associated with the second position of the lens cover and the first position of the infrared filter (Bitter; Fig. 3 shows the opened lens-cover in second position; the second handle position is interpreted as the initial condition wherein the opening of lens-cover causes the infrared filter to dispose into optical path for capturing visible light image), and the handle having a third position associated with the second position of the infrared filter (infrared image is commonly captured in low light environment or night vision, and thereby the third position must be associated with the second position of the infrared filter).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Kleinschmidt (US-6085,112) discloses a camera-communication device having an infrared link port.

b) Okamoto (US-6,633,231) discloses a camera-phone wherein infrared objects and images are detected and captured.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday -Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HL

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